



REDCap Longitudinal Projects Guide

Longitudinal projects in REDCap allow you to collect data across multiple time points, visits, or repeated occurrences for the same participant. This structure is ideal for studies involving follow-up visits, repeated measures, or ongoing participant tracking.

Important: Enable Longitudinal project structure before moving the project to PROD whenever possible. Converting a project to longitudinal after data collection has begun can be complex and may affect existing data.

Longitudinal Design Use

- Multiple visits (baseline, follow-up, discharge)
- Repeated measures over time
- Ongoing participant tracking
- Data collected at scheduled intervals

Tip: Use longitudinal design when the **same participant** has multiple time-based data points—not for grouping different participant types.

Enable Longitudinal Mode

Project Setup → Additional Customizations.

Once enabled, you will define events and assign instruments accordingly.

Tip: Enable this early in development. Structural changes later are more complex and require careful review.

Define Events

Events represent time points or visits in your study.

- Baseline
- Visit 1, Visit 2, Visit 3
- Follow-up (e.g., 30-day, 6-month)
- Ad hoc or unscheduled visits

Tip: Name events clearly and consistently to reflect real study workflows.

Use Study Arms (When Needed)

Arms are used to separate different study groups or workflows:

- Treatment vs Control groups
- Different study cohorts
- Distinct protocols within one project

Important: Do not use arms simply to separate survey types or user groups. This often creates unnecessary complexity.

Assign Instruments to Events

Each instrument must be mapped to the appropriate event(s):

- Baseline forms → Baseline event
- Follow-up surveys → Follow-up events
- Shared instruments → Multiple events

Tip: Map only what is needed per event to keep data entry clean and intuitive.

Repeating Events & Instruments

Repeating functionality allows multiple entries within the same event:

- Repeating instruments (e.g., medications, adverse events)
- Repeating events (e.g., multiple unscheduled visits)

Tip: Use repeating instruments for lists and repeating events for full visit-level duplication.

Surveys in Longitudinal Projects

Surveys can be enabled per instrument and tied to specific events:

- Use Survey Queue for sequencing
- Use Automated Invitations for timing
- Use logic to control survey availability

Important: REDCap supports only **one public survey link per project**. Use Survey Queue and logic to direct participants appropriately.

Common Pitfalls:

- Using arms instead of events
- Overcomplicating event structure
- Mapping all instruments to all events unnecessarily
- Not testing full workflows
- Converting to longitudinal after production

Important: Most longitudinal issues stem from overengineering. Keep the structure as simple as possible.

Best Practices

- Align events with real-world workflow
- Keep naming consistent (Visit 1, Visit 2, etc.)
- Minimize unnecessary arms
- Use repeating instruments thoughtfully
- Test full participant flow across all events
- Use clear form and event descriptions
- Build for usability first—complex designs increase data entry errors and user confusion.